



# 913. The marine engine.



25-132 kW at 1500-2300 min<sup>-1</sup>



## These are the characteristics of the 913:

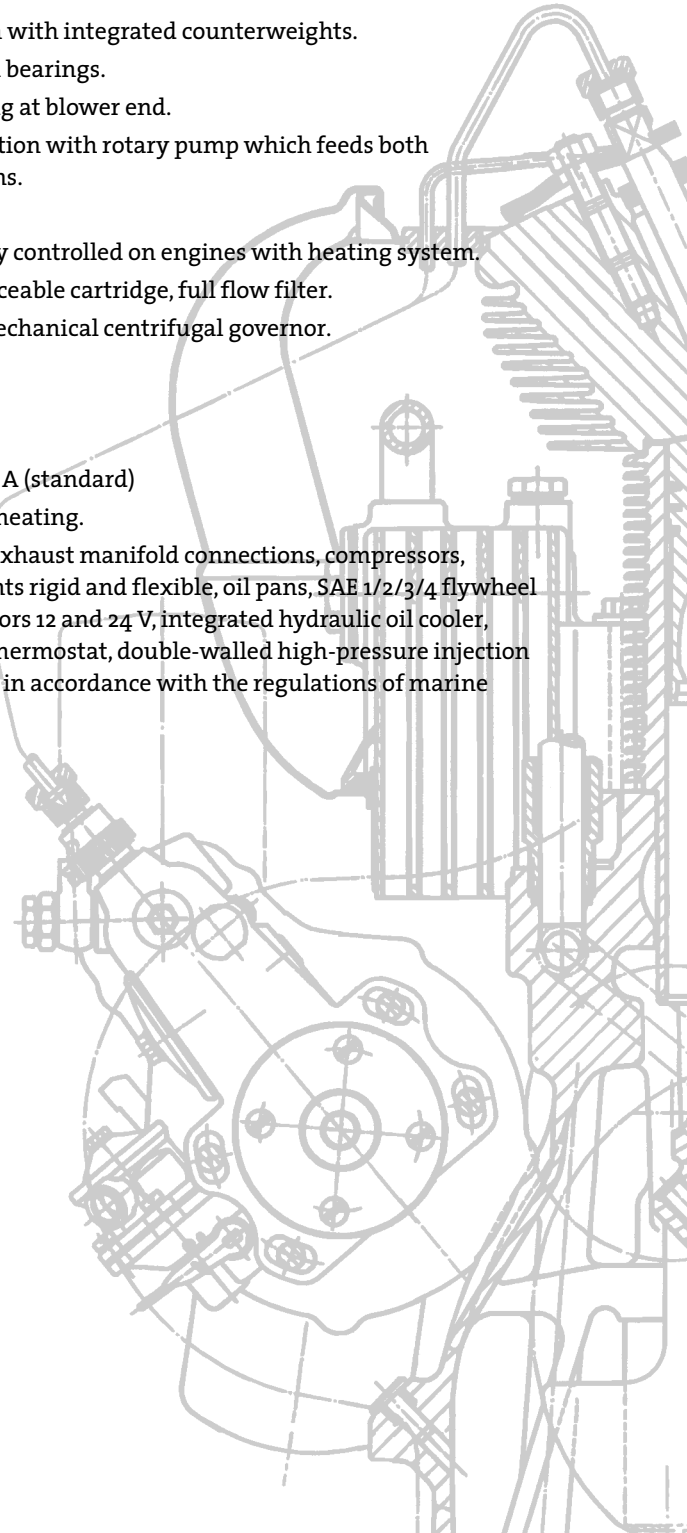
- Air-cooled 3, 4, 5 and 6 cylinder naturally aspirated in-line engines.
- Turbocharging and turbocharging with charge air cooling.
- Unit construction system with single cylinder arrangement and maximum parts commonality.
- Advanced injection and combustion systems.
- Electronic governor (option).
- Compact power unit with low weight.
- Only a few servicing points.
- Tried and tested worldwide: more than 2.7 million engines in operation.

## Your benefits:

- ▶ Exemplarily low fuel and oil consumption as well as long maintenance intervals and ease of service save operating costs.
- ▶ Low noise radiation. This eliminates the need for costly noise attenuation measures.
- ▶ Easy and cost-effective installation due to minimum weight and small space requirement.
- ▶ Excellent smooth-running characteristics thanks to low engine vibrations.
- ▶ Incomparably low exhaust emissions, current exhaust emission regulations are easily fulfilled.

## ► Engine description

Type of cooling:	Air-cooled with integrated axial-flow blower.
Crankcase:	Grey cast iron.
Cylinder head:	Aluminium single cylinder heads, protection against seawater corrosion (optional).
Valve arrangement / timing:	Overhead valves in the cylinder head, one inlet and one exhaust valve per cylinder, actuated from gear driven camshaft via tappets, pushrods and rocker arms.
Piston:	Three-ring piston: 2 compression rings, 1 oil scraper ring.
Piston cooling:	Oil cooled with spray nozzles.
Crankshaft:	Crankshaft of nodular cast iron with integrated counterweights.
Crankshaft and big-end bearings:	Ready-to-install bi-metal plain bearings.
Camshaft:	Steel, seated in bi-metal bearing at blower end.
Lubrication system:	Forced-feed circulation lubrication with rotary pump which feeds both lubricating and heating systems.
Engine oil cooler:	Integrated aluminium cooler.
Oil cooler thermostat:	Oil cooler flow thermostatically controlled on engines with heating system.
Lubricating oil filter:	Paper-type microfilter as replaceable cartridge, full flow filter.
Injection pump / governor:	In-line injection pump with mechanical centrifugal governor.
Injection nozzle:	Five-hole nozzle.
Fuel filter:	Replaceable cartridge.
Starter motor:	12 V, 2.7 kW (standard)
Alternator:	Three-phase alternator, 14 V, 55 A (standard)
Heating system:	Optional connection for cabin heating.
Options:	Intake manifold connections, exhaust manifold connections, compressors, hydraulic pumps, engine mounts rigid and flexible, oil pans, SAE 1/2/3/4 flywheel housings, three-phase alternators 12 and 24 V, integrated hydraulic oil cooler, blower controlled by exhaust thermostat, double-walled high-pressure injection lines, classification acceptance in accordance with the regulations of marine classification societies.



## ► Technical data

Engine type		F3L 913	F4L 913	BF4L 913	F6L 913	BF6L 913	BF6L913 C
Model		in-line	in-line	in-line	in-line	in-line	in-line
Number of cylinders		3	4	4	6	6	6
Bore/stroke	mm	102/125	102/125	102/125	102/125	102/125	102/125
displacement	l	3.064	4.086	4.086	6.028	6.128	6.128
<b>Power ratings for marine propulsion units</b>							
acc. to power category A <sup>1)</sup>							
at 1500 min <sup>-1</sup>	kW (HP)	25 (34)	34 (46)	47 (64)	51 (70)	70 (95)	81 (110)
at 1800 min <sup>-1</sup>	kW (HP)	30 (41)	41 (56)	55 (75)	63 (86)	82 (112)	99 (135)
at 2150 min <sup>-1</sup>	kW (HP)	35 (48)	48 (65)	64 (87)	72 (98)	96 (131)	112 (152)
acc. to power category B <sup>2)</sup>							
at 2300 min <sup>-1</sup>	kW (HP)	41 (56)	56 (76)	74 (100)	84 (114)	112 (152)	132 (180)
<b>Power ratings for on-board generating sets</b>							
Continuous power <sup>3)</sup>							
at 1500 min <sup>-1</sup>	kW (HP)	30 (40)	40 (54)	58 (79)	59 (81)	91 (124)	118 (160)
at 1800 min <sup>-1</sup>	kW (HP)	35 (48)	46 (63)	69 (94)	70 (96)	112 (153)	142 (193)
Specific fuel consumption <sup>4)</sup>							
at 1500 min <sup>-1</sup>	g/kWh (g/HPh)	214 (158)	214 (158)	212 (156)	213 (157)	215 (158)	207 (152)
at 1800 min <sup>-1</sup>	g/kWh (g/HPh)	223 (163)	223 (164)	218 (160)	223 (164)	223 (164)	206 (151)
at 2150 min <sup>-1</sup>	g/kWh (g/HPh)	237 (174)	237 (174)	228 (168)	237 (174)	237 (174)	217 (160)
Weight	kg	277	307	350	430	485	510
IMO NO <sub>x</sub> limit values <sup>5)</sup>		fulfilled	fulfilled	fulfilled	fulfilled	fulfilled	fulfilled
Fulfills classification regulations <sup>6)</sup> acc. to:			NKK*	NKK	NKK	NKK	NKK NKK

1) Continuous net brake fuel stop power, utilization above 80%, SCFN to ISO 3046/7.

2) Continuous fuel stop power, utilization max. 70%, SFN to ISO 3046/7.

3) Overloadable by 10% for 60 min. within a period of 12 hours (PRP power).

4) At optimal operating point. Refers to power category A.

5) NO<sub>x</sub> limit values to IMO Technical Code MP/Conf. 3/35.

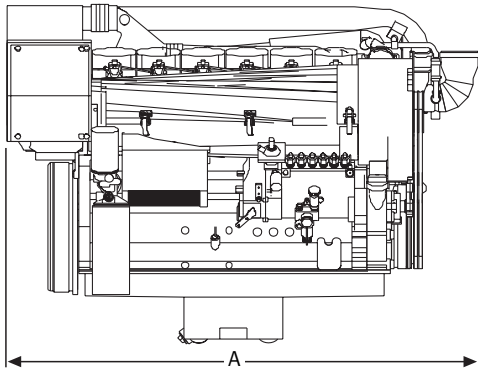
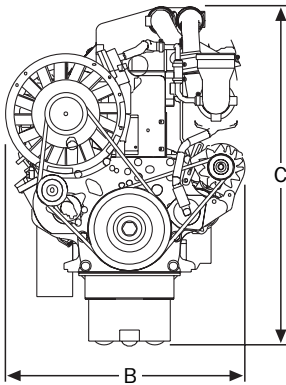
6) Other marine classifications on request.

Power declarations based on the following ambient conditions:  
25°C intake air temperature, 25°C coolant temperature, barometric pressure  
1000 mbar.

\* NKK = Nippon Kajii Kyokai

The values given in this data sheet are for information only and not binding.  
The data provided in the offer is decisive.

## ► Dimensions



Engine type		A	B	C
F3L913	mm	697	679	796
F4L913	mm	807	679	796
BF4L913	mm	814	692	853
F6L913	mm	1084	679	806
BF6L913	mm	1108	714	876
BF6L913C	mm	1137	714	876



Knowing it's DEUTZ.

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